

The Relationship between Social Networks and Micro Shareholders¹

Maysam MUSAI¹

Mohsen MEHRARA²

Seyed kamalodin Ahmadi GHALLE³

^{1,2}Faculty of Social Sciences, University of Tehran, Iran, ²E-mail: mousaaei@ut.ac.ir

Abstract *In this paper we had studied the relationship between social networks and micro (small)-shareholders, also, and we had answered this basic question that whether social networks affect shareholders decision-making for entering stock market and selling and buying the shares? If it so, which one has the greater effect? This study is a survey, studied population of which is the shareholders of Tehran stock market; 384 people had been selected randomly and had been questioned. We had analyzed the result using variance analysis method. The findings show that, there are some social networks which effect participating of shareholders in stock market including: social networks of friends and acquaintance, social network of relatives and kinsfolk, social network of Internet, social group of ethnicity. They had the strongest effect. The strongest networks which affect decision-making about selling and buying the shares are, respectively: social network of coworkers in stock market, social network of friends and acquaintance, social network of relatives and kinsfolk. We concluded that social and economic policy-makers in course of stock market expansion, can support the effective social networks of stock market and equip them with information, or, establish (virtual informative) networks in stock market.*

Key words Stock market, social network, shareholder, decision-making

DOI: 10.6007/IJARAFMS/v4-i1/623

URL: <http://dx.doi.org/10.6007/IJARAFMS/v4-i1/623>

1. Introduction

For long times, analyzing the actors behavior in economic field was occupied by economic theories. These were based their assumptions on reasonable human. The reasonable action and desirability had been formed, mainly, on the basis of these assumptions. Later, studying actor's behavior showed that some of these behaviors are not distinguishable. Nowadays, presenting an united paradigm for the actor's behaviors, without considering the non-economic aspects, will challenge the relative studies and researches. Until now, little attention had been paid to presentation of a behavioral paradigm of stock market through considering social processes.

Following issues are indicators of high importance of study. Thus, we had clarified the relationship between social networks and micro-shareholders decision-making in stock market.

2. Literature review

Fisher, K. & Statman, M., in their studies, concluded that analyzing buying and selling shares, technical factors of stock market especially price, risk and revenue are not good indicators; as individuals don't consider, only, the price we buy fruits (Fisher, K. & Statman, M.; 1997). Fisher & Statman results appealed that analyzing the stock market, we have to go beyond its outward shell, which is price and revenue; and we must analysis shareholder' behavior through investigating and studying different bonds and relations.

Slovic, P., studying the decision-making process in stock market, mentions capital market as 'information game' v 'money game' (Slovic, P). To his idea, there is no such a place, like stock market, at which huge information resources exist. He claims that interpreting and analyzing the information is very

¹ The authors would like to acknowledge the financial of University of Tehran for this research under grant number 4460001/1/3-12

important. Using computerized simulation connects information investigating to the mental situation and personal judgment of the shareholders. Slovic, himself, acknowledge that completing these debates requires more researches with regard to other aspects of decision-making. Kim, Y., & Srivastava, J., had studied the relationship between clients, purchasers and the social networks (Kim, & Srivastava). They had concluded that clients, in their purchases, mainly, will be affected by information, which they get through trusted people; rather than producers' information. To their idea, such a social dominance propagates by the social networks. This research specifies the role of social networking in facilitating decision-making process, clearly. If we want to correlate this to stock market, we will see that most shareholders will be impressed by trusted social networks' information; rather than the companies' information.

Burt, R., has pointed to the role of brokers through shedding information, and he believes that 'the brokers have axons, which are connected to such places, in where, possibly, some useful information is supplied; supply durable information to/and from these places' (Brogman, 2008).

Burt believes that the networks help people to obtain information, quickly, which without networks, obtaining them is so difficult and even in some cases impossible. Also, he believes that networks help

Purifying the information (Burt, 1997). To his idea, network's structure specifies useful information (Burt, 1997). Burt believes that cohesive and equivalent network is the recognizer (Burt, 1997).

Burt's theory appears the network's internal information. He place great importance on information issuance. Thus, this will be useful for our theoretical framework, which considers internal network data important for individuals' decision-making.

Wellman state that the network's bands provide 'network's capital', which is a form of social capital (Wellman, 2001:27). To Wellman's idea, the supports which can present to individuals, through the mutual-relations, are: companionship support, emotional support, service support, financial support, informational support and advisory support (Baastanie *et.al*, 1386:68).

Since Wellman has considers support variety, we will use his classification in our study. Also, because we want to study and investigate degree of advisory and informational supports effects in decision-making process of different members of network, therefore, our theoretical base will be his variation for social networks' supports.

As had been said many researches had studied stock market from different points of views, in this paper, synthesizing pervious theories we are proposing a model, based on the role and position of social networks in exchange market, for analyzing role of social networks in stock market. Many components and factors affect shareholders decision-making. These factors and components can affect shareholders' decision-making, directly or indirectly. The information and data of aforementioned factors and components will be processed on the basis of social network. Thus, the role these networks will be relived in decision-making of shareholders. On the other hand, social networks, usually, becomes affective, through processing and purifying, on final decision-making of shareholders in exchange market. On the other hand, these components and factors affect the decision-making process, too. We are showing this part of the relation in terms of direct relationship between different factors and shareholders' decision-making, through the model. As we had shown in the model, we can discuss social capital in terms of network relational-interpersonal analyzing, without considering social capital in group level. Such a social capital, which we call 'social networking capital' or 'relational asset', is focused on various supportive and instrumental resources, which are available in the network and become available by individual investment in social relations and obtaining social resources (Baastanie *et.al*, 1386:66). We can study social capital of the network by three dimensions structural properties (network size and composition, which Patnam call such variables: 'limited social capital'), interactive properties (intimacy and contact frequency) and functional properties (kinds of support) (Baastanie, 1386:66). Social networks provide various supports: companionship support, emotional support, service support, financial support, informational support and advisory support (Baastanie *et.al*, 1386:68).

Due to the great importance of information in networks, in this study, we had discussed interactive and functional properties.

3. Research method

Studying the subject, the quantitative method had been chosen. This method is based on collecting quantitative data. Due to this, first of all, we had recognized the statistical population; research's population was including the entire micro-shareholders of stock market. According to our ideology, the real shareholders who don't have the managerial shares of a company are the micro-shareholders. We had calculated the sample population size, after recognizing the statistical population and using Cronbach's alpha method, which are more almost 384 persons.

Using multi-stage clustering method for collecting research data, the sample population had been determined. Then, using the theoretical framework, the Questionnaire instrument had been developed for data collecting. Questionnaire stability had been calculated using Cronbach's alpha which was equal to 0.76. Then, using SPSS software, the collected data had been analyzed. First, we coded the data, and then imported them for the software, and finally we had analyzed them in order to study the correlation between the dependent and independent variables.

We had used linear regression in order to predict the dependent variable changes based on independent variable changes.

4. Research findings

Collecting and classifying the information, and performing various tests and analysis, following results had been appeared:

H1 (first hypothesis): there is a relationship between social networks and micro-shareholders' decision-making to enter the stock market. Testing the correlation between the variables of the hypothesis, following results appeared:

1. There is a relationship between relatives and kinsfolk network and micro-shareholders entering the stock market, by confidence interval of 95%. (sig=0.00).

This relation by $R=0.384$, shows direct and almost moderated correlation.

2. There is a relation between friends and acquaintance and micro-shareholders decision to enter the stock market, by confidence interval of 95%. (sig=0.00)

This relation by $R=0.713$, shows direct and high correlation between entering the stock market and friends and acquaintance social network.

3. There is a relation between social network of internet and micro-shareholders decision to enter the stock market, by confidence interval of 95%. (sig=0.00)

This relation by $R=0.477$, shows direct and moderate-to-high correlation between entering the stock market and social network of Internet.

4. There is a relation between social network of ethnicity and micro-shareholders decision to enter the stock market, by confidence interval of 95%. (sig=0.00)

This relation by $R=0.253$, shows direct and low correlation between entering the stock market and social network of ethnicity.

5. There is no relation between social network of gender and micro-shareholders decision to enter the stock market, by confidence interval of 95%. (sig=0.985)

There is no relationship because the significance level is higher than the acceptable error.

6. There is no relation between social network of external co-workers and micro-shareholders decision to enter the stock market, by confidence interval of 95%. (sig=0.349)

There is no relationship because the significance level is higher than the acceptable error.

Measuring the role of each social network (independent variable) on micro-shareholders decision to enter the stock market (dependent variable), we had used linear regression, and the results as following:

Most effective social was friends and acquaintance ($B=0.638$) and the least effective network was ethnicity ($B=0.121$). Social networks of relatives and kinsfolk ($B=0.552$) and Internet ($B=.4777$), affect shareholders decision to enter the stock market moderately.

Multiple regressions (social network- the decision to enter the stock market)

Coefficient of multiple correlation	Determination coefficient	Adjusted determination coefficient
0.850	0.785	0.78

With respect to above table, the determination coefficient equals 0.785; since all variables enter the equation simultaneously, thus, the determination coefficient shows that the 78.5% of dependent variable changes, which we call ‘micro-shareholder’s decision to enter the stock market’, will be clarified by these six variables.

Since determination coefficient doesn’t include freedom degree, therefore solving this problem, usually, we use adjusted determination coefficient, score of which equals 0.78.

Also, noting that the coefficient of multiple correlation 0.850, this coefficient display the intensity of relationship between independent variable and dependant variable.

H2 (Second hypothesis); there is a relationship between social networks and the micro-shareholder’s decision to sell and purchase. Using variables correlation test, following results had been obtained for the second Hypothesis:

1. There is a relationship between relatives and kinsfolk network and micro-shareholders’ decision selling and purchasing with the stock market, by confidence interval of 95%. (Sig=0.00).

This relation by $R=0.168$, shows direct and low correlation.

2. There is a relation between friends and acquaintance network and micro-shareholders’ decision selling and purchasing with the stock market, by confidence interval of 95%. (sig=0.00)

This relation by $R=0.508$, shows direct and relatively high correlation between selling and purchasing with the stock market and friends and acquaintance social network.

3. There is a relation between social network of internal co-workers and micro-shareholders’ decision selling and purchasing with the stock market, by confidence interval of 95%. (sig=0.00)

This relation by $R=0.681$, shows direct and high correlation between selling and purchasing with the stock market and social network of Internet.

4. There is a no relation between social network of internet and micro-shareholders’ decision selling and purchasing with the stock market, by confidence interval of 95%. (sig=0.339)

There is no relationship because the significance level is higher than the acceptable error.

5. There is no relation between social network of gender and micro-shareholders’ decision selling and purchasing with the stock market, by confidence interval of 95%. (sig=0.645)

There is no relationship because the significance level is higher than the acceptable error.

6. There is no relation between social network of ethnicity and micro-shareholders’ decision selling and purchasing with the stock market, by confidence interval of 95%. (sig=0.130)

There is no relationship because the significance level is higher than the acceptable error.

Also, here, measuring effects of each social networks (independent variable) on micro-shareholder’s selling and purchasing decision (dependent variable), we used linear regression; results of which demonstrate that social network of internal co-workers in stock market is the most effective ($B=0.801$) and social network of relatives and kinsfolk is the least effective ($B=0.537$). Social network of friends and acquaintance effect selling and purchasing decision moderately ($B=0.537$).

Multiple regressions (social networks – selling and purchasing decision)

Coefficient of multiple correlation	Determination coefficient	Adjusted determination coefficient
0.934	0.872	0.87

With respect to above table, the determination coefficient equals 0.872; since all variables enter the equation simultaneously, thus, the determination coefficient shows that the 87.2% of dependent variable changes, which we call ‘micro-shareholder’s decision to enter the stock market’, will be clarified by these six variables.

Since determination coefficient doesn’t include freedom degree, therefore solving this problem, usually, we use adjusted determination coefficient, score of which equals 0.87.

Also, noting that the coefficient of multiple correlation 0.934, this coefficient display the intensity of relationship between independent variable and dependant variable.

5. Conclusions

Many researchers, using different components and various models, had evaluated factors effecting shareholders' decision; the number of these is indicator of the complexity of analyzing decision-making process in stock market. We cannot evaluate decision-making process in stock market as a behavioral paradigm. Here, we have tried to clarify shareholders' behavioral paradigm, while spotting non-economic aspects of capital market.

In this research, social networks had been introduced and discussed as the mediators of shareholders' decision-making and different components. As we had said, various factors affect shareholders' decision-making. Many studies have surveyed this subject, one-dimensionally and multi-dimensionally. Our main objective was presenting a frame in terms of shareholder's decision-making to investigate different non-economic aspects of this process. Pervious studies' theorizing was, mainly, relied on effects of different factors on shareholders' decision making. Here, the reasoning is based on decision-making, in terms of information processing in social networks. Unlike previous reasoning, which had paid less attention to social networks, here we had attempted to emboss the role of social networks, using theoretical and empirical evidences. There are many instances which show that the social networks play a determinant role in individuals' decision-making.

Indeed, there are three factors which m through conclusion, will be on our side:

First: formation of social networks is, relatively, apparently prevalent in market.

Second: even as a simple model, performs many predictions.

Third: the model is consistent with many evidences, especially creation of bubble market.

In summary, we can say due to the fact that the social networks area station of information processing and micro-shareholders decision-making, thus they will be good resources for economic and social politics in terms of directing the stock market to the development and stability. As we have seen, the results demonstrate that the shareholders' decision-making mainly deal with mediatory social networks; rather than direct and immediate decisions.

Also, the findings shows that there are differences between social networks , in terms of importance and their role in shareholders' decision-making. On the other hand, the degree of advisory and informational support will differ according to the network. Wellman had introduced this issue in his theory, namely, 'contrasting supports of social networks through transformation from neighborhood groups to network society'. That we can say that while social relations are being more generalized, the network support is going to be more specialized, and each social network will undertake a special function against group members.

Hereby, noting the research results, we had recognized that social networks play an important role in information processing and purifying, and therefore, shareholders' decision-making in capital market. Future studies on usefulness of received information from social networks, in the capital market, may help for developing and expanding of this subject.

References

- [1] Baastanie, S and Saalehie Hikoee, M., (1386), 'social capital of network and gender: investigating structural, interactive and functional properties of women and men social networks in Tehran, social sciences epistle, No.30.
- [2] Bruggeman, J. (2008). *Social Networks: An Introduction*. New York: Routledge, 2008.
- [3] Burt, R. (1997). "The Contigent Value of Social Capital", *Administrative Sience Quarterly*, 339-365.
- [4] Burt, R. (1992). "The Social Structure of the Competition", Pp. 57-91 in *Networks and Organizations*, edited by N. Nohria and R. Eccles, Boston: Harvard Business School Press.
- [5] Burt, R. (1997). "Social Network", *University of Chicago*, 355-373.
- [6] Fisher, Kenneth L. and M. Statman (1997). "A Behavioral Framework for Time Diversification," *Financial Analysts Journal*, May/June, 88.
- [7] Fisher, Kenneth L. and M. Statman (1997). "Investment Advice from Mutual Fund Companies," *Journal of Portfolio Management*, Fall: 9-25.

- [8] Kim, Y. and J. Srivastava(2007). "Impact of Social Influence in E-Commerce Decision Making" Proceedings of the Ninth International Conference on Electronic Commerce.
- [9] Putnam, R. D (1993). Making Democracy Work. Princeton, Nj:Princetonuniversity Press.
- [10] Slovic, P. (2001). 'Psychological Study of Human Judgment: Implications for Investment Decision Making', Journal of Behavioral Finance, 2: 3, 160 — 172.
- [11] Wellman, B. (1997). An Electronic Group Is Virtually A Social Network, Culture of the Internet, Mahwah, Nj:Lawrence Erlbaum.
- [12] Wellman, B. and k. Fran. (2001). Network Capital in A Multilevel World. in Social Capital, n. lin, r. S. Burt and k. Cook, eds., 23373.
- [13] Wellman, B. (1988). "Structural Analysis: From Method and Metaphor to Theory and Substance". In Barry. Wellman and S. D. Berkowitz (eds.) Social Structures: A Network Approach. Pp. 19-61. Cambridge: Cambridge University Press .
- [14] Wellman, B. (1979). "The Community Question: The Intimate Networks of East Yorkers." American Journal of Sociology 84 (March): 1201-31.
- [15] Wellman, B. (2001). The Persistence and Transformation of Community: From Neighbourhood Groups to Social Networks, Report to the Law Commission of Canada.
- [16] Wellman, B. (2006). The Strength of Internet Ties, University of Toronto.